

**WHAT IS CLAIMED IS:**

- 1           1.       A system for synchronizing configuration information in a plurality of  
2 data processing devices, comprising:  
3           a node controller operably;  
4           a plurality of interface agents operably connected to node controller;  
5           a token ring connecting said node controller and said plurality of interface agents;  
6           wherein transactions from said interface agents are directed to said node  
7                   controller and said node controller transmits information to each agent  
8                   using said token ring.
- 1           2.       The system of claim 1, wherein said agents comprise a plurality of  
2 configuration registers and said information transmitted on said token ring is used by said  
3 agents to update said configuration registers.
- 1           3.       The system of claim 2, wherein each of said agents further comprises a  
2 CSR register..
- 1           4.       The system of claim 2, wherein said interface agents operate in accordance  
2 with the hypertransport protocol.
- 1           5.       The system of claim 4, wherein each of said agents comprise a HT  
2 configuration space register and a HT configuration space shadow register.
- 1           6.       The system of claim 4, wherein said transaction comprises an input/output  
2 transaction.
- 1           7.       The system of claim 4, wherein said transaction comprises a control  
2 command.
- 1           8.       The system of claim 4, wherein said transaction comprises a write to a  
2 memory addresses.

1           9.     The system of claim 4, wherein said transaction comprises a read from a  
2     memory addresses.

1           10.    The system of claim 4, wherein the information in the HT configuration  
2     space shadow register of an agent is updated by a snoop on said token ring executed by  
3     said agent.

1           11.    A system for synchronizing configuration information in a plurality of  
2     data processing devices using a common system interconnect bus, comprising:  
3                 a node controller operably connected to said system interconnect bus;  
4                 a plurality of interface agents operably connected to node controller;  
5                 a token ring connecting said node controller and said plurality of interface agents;  
6                 wherein transactions from said interface agents are directed to said node  
7                         controller and said node controller:  
8                                 transfers said transactions to said system interconnect bus;  
9                                 detects said transactions; and  
10                                transmits information to said agents using said to said token ring.

1           12.    The system of claim 11, wherein said node controller comprises a  
2     configuration block and said transactions are detected by said configuration block.

1           13.    The system of claim 12, wherein said token ring is connected to said  
2     configuration block of said node controller.

1           14.    The system of claim 13, wherein said agents comprise a plurality of  
2     configuration registers and said information transmitted on said token ring is used by said  
3     agents to update said configuration registers.

1           15.    The system of claim 14, wherein each of said agents further comprises a  
2     CSR register..

1           16.     The system of claim 14, wherein said interface agents operate in  
2     accordance with the hypertransport protocol.

1           17.     The system of claim 16, wherein each of said agents comprise a HT  
2     configuration space register and a HT configuration space shadow register.

1           18.     The system of claim 14, wherein said transaction comprises an  
2     input/output transaction.

1           19.     The system of claim 14, wherein said transaction comprises a control  
2     command.

1           20.     The system of claim 14, wherein said transaction comprises a write to a  
2     memory addresses.

1           21.     The system of claim 14, wherein said transaction comprises a read from a  
2     memory addresses.

1           22.     The system of claim 14, wherein the information in the HT configuration  
2     space shadow register of an agent is updated by a snoop on said token ring executed by  
3     said agent.

1           23.     A system for synchronizing configuration information in a plurality of  
2 data processing devices using a common system interconnect bus, comprising:  
3           a processor operably connected to said interconnect bus;  
4           a node controller operably connected to said system interconnect bus;  
5           a plurality of interface agents operably connected to node controller;  
6           a token ring connecting said node controller and said plurality of interface agents;  
7           wherein transactions from said processor are directed to said node controller and  
8                 said node controller:  
9                 detects said transactions; and  
10                transmits information to said agents using said to said token ring.  
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1           24.     The system of claim 23, wherein said node controller comprises a  
2 configuration block and said transactions are detected by said configuration block.

1           25.     The system of claim 24, wherein said token ring is connected to said  
2 configuration block of said node controller.

1           26.     The system of claim 23, wherein said agents comprise a plurality of  
2 configuration registers and said information transmitted on said token ring is used by said  
3 agents to update said configuration registers.

1           27.     The system of claim 26, wherein each of said agents further comprises a  
2 CSR register..

1           28.     The system of claim 27, wherein said interface agents operate in  
2 accordance with the hypertransport protocol.

1           29.     The system of claim 28, wherein each of said agents comprise a HT  
2 configuration space register and a HT configuration space shadow register.

1           30.     The system of claim 29, wherein said transaction comprises an  
2     input/output transaction.

1           31.     The system of claim 29, wherein said transaction comprises a control  
2     command.

1           32.     The system of claim 29, wherein said transaction comprises a write to a  
2     memory addresses.

1           33.     The system of claim 29, wherein said transaction comprises a read from a  
2     memory addresses.

1           34.     The system of claim 29, wherein the information in the HT configuration  
2     space shadow register of an agent is updated by a snoop on said token ring executed by  
3     said agent.

1           9.     A method for synchronizing configuration information in a plurality of  
2 data processing devices using a common system interconnect bus, comprising:  
3           receiving a transaction in a port of an interface agent, said interface agent  
4           comprising:  
5                 a configuration space register; and  
6                 a configuration space shadow register;  
7           transferring said transaction to a node controller, said node controller comprising  
8                 a configuration block;  
9           transferring said transaction from said node controller to a system interconnect  
10           bus;  
11           detecting said transaction on said system interconnect bus using said  
12                 configuration block of said node controller and transferring said  
13                 transaction to a token ring having a plurality of agents connected thereto;  
14           and  
15           transmitting said transaction on said token ring, wherein the information in the  
16                 configuration registers and the configuration space shadow registers of  
17                 said agents is updated.

1           10.    The method of claim 9, wherein said interface agents operate in  
2 accordance with the hypertransport protocol.

1           11.    The method of claim 9, wherein said configuration space register  
2 comprises a HT configuration space register and said configuration space shadow register  
3 comprises a HT configuration space shadow register.

1           12.    The method of claim 11, wherein said transaction comprises an  
2 input/output transaction.

1           13.    The method of claim 11, wherein said transactions comprises a control  
2 command.

1           14.     The method of claim 11, wherein said transactions comprises a write to a  
2     memory addresse.

1           15.     The method of claim 11, wherein said transaction comprises a read from a  
2     memory addresses.

1           16.     The method of claim 11, wherein the information in a HT configuration  
2     space shadow register of an agent is updated by a snoop on said token ring initiated by  
3     said agent.